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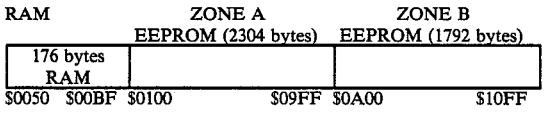
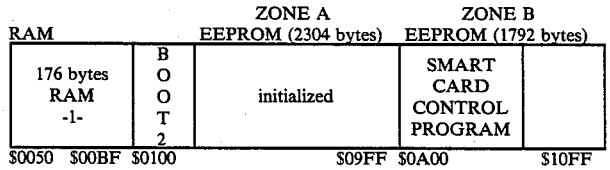
A.3.1	STATUS MESSAGE
A.3.1.1	Set preamble
A.3.1.2	SERIAL I/O
A.3.2	SERIAL I/O DRIVER
A.3.2.1	READ MODE
A.3.2.2	WRITE MODE
A.3.3	BLOCK MOVE TO RAM BUFFER
A.3.3.1	Get beginning address of send area
A.3.3.1	Get length
A.3.3.3	Set OP code and beginning of buffer address
A.3.3.4	MOVE EACH BYTE
A.3.3.4.1	alter instruction address
A.3.3.4.2	perform instruction and RTS in RAM

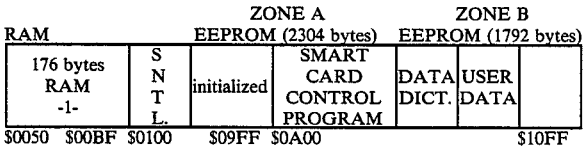
The initial state of the microcomputer is shown as follows:



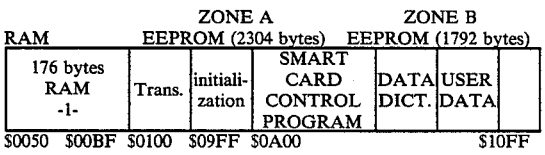
The ROM bootstrap (Boot0) which comes with the microcomputer loads Boot1 into RAM address space beginning at **$0050**. Control is then passed to Boot1 which loads the smart card control program **50**, Boot2 which will subsequently personalize the smart card, and vectors to pass subsequent control to the application. The programming of the microcomputer with the smart card control program **50** is preferably done by program equipment **70** while the microcomputer **40** is on the carrier substrate **42** but is not yet imbedded in the smart card **20** as generally illustrated in FIG. **4**. As illustrated, the carrier substrate **42** might be fed from and to tape-like reels **72**. The programmer equipment **70** has the standard ISO contacts as well as the switch contact which will direct execution to the ROM bootstrap. The results of the smart card load are acknowledged from the smart card. No response or a NAK will result in the carrier being scored/holed so that the part is recognizable and personalization time is bypassed. Also, provision is made to disable the circuitry, or vectors for loading the smart card. The memory map after loading the smart card control program through Boot1 is illustrated below:



In use, at the time of initial personalization of the smart card **20** by the application user, the smart card control program **50** at the time of being powered up will recognize that Boot2 is present in memory and will perform that function. Boot2 will load data dictionary **50** and personalization data into memory Zone B, load the personalized user data into the smart card **20** beyond the data dictionary, erases Boot2 from memory Zone A, and writes a Sentinal to indicate the beginning of Zone A. The card personalization process is initiated by an interactive process which defines, batch, date, customer and data dictionary to use. This extracts the necessary information to define the user's input and the fixed data to include in the data dictionary. Personalization data is preferably stored on a suitable storage media and read in by the utility program and written to a smart card as it passes a reader. The chip carrier might have been imbedded into the smart card prior to the personalization process so as to reduce waste or might later be imbedded in the smart card. In any event, the contacts **31–38** are presented to the card personalization terminal which will be programmed to interface with the smart card control program **50**. Power is applied to the smart card and the smart card will initiate dialog with the personalization terminal. After personalization, the memory map will appear as follows:



Transactions are entered by the smart card being placed in a reader and the application program issuing commands to write data to the smart card. The data is written in the next available location. The smart card of the present invention has the capability to reinitialize Zone A of the memory and reload selected transactions to make room for more. During transaction processing the memory map generally appears as follows:



It is to be understood that even though the above numerous characteristics and advantages of the invention have been set forth in the foregoing description, together with details of the structure function of the invention, the disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size and arrangement of parts within the principle of the invention, to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. A method for making a smart card including a microcomputer; the method comprising the steps of: